

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-149	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/13828	International filing date (<i>day/month/year</i>) 28.11.2003	Priority date (<i>day/month/year</i>) 10.10.2003
International Patent Classification (IPC) or both national classification and IPC A23L1/30, A61K31/201		
Applicant UNIVERSITAT DE LES ILLES BALEARS		



1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 28.04.2005	Date of completion of this report 25.01.2006
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Tallgren, A Telephone No. +31 70 340-3933 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/13828

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-17 as originally filed

Claims, Numbers

1-5 received on 28.06.2005 with letter of 25.06.2005

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/13828**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-5
	No: Claims	
Inventive step (IS)	Yes: Claims	1-5
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-5
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/13828

1. The amended claim 1 fulfill the criteria set by article 34(2)b and is therefore accepted (based to old claim 2 and page 8 lines 21-25, page 11 lines 5-14 and page 12 lines 6-17). The same applies to dependent claims 2-5 (based to old claims 3-6)

ITEM V

WO03030891 CPA (closest prior art)

1. Both the application and CPA describe the use same type of compounds (2-substituted oleic and related acids (2-hydroxyoleic acid)) as in this application for treating e.g. hypertension and obesity associated with structural changes in cell membranes.

2. The difference is, that in CPA there is no mentioning of use in food or dietary supplement type of products.

3. The technical problem solved by the present application is to provide an advantageous technical effect to food compositions, to avoid or reduce the risks of developing hypertension and obesity.

4. This application provides an alternative route to specific compound (2-substituted oleic and related acids (2-hydroxyoleic acid)) administration. D2-D4 comprise different fatty acids administered also as functional food to avoid or reduce the risks of cardiovascular diseases (hypertension or obesity not mentioned). WO0200042 describes the use of different long chain fatty acids to avoid or reduce obesity as functional food supplement. The compounds in the previous mentioned documents are not closely related derivatives or otherwise closely related compounds. The compounds described in CPA are not administered orally, but injected and therefore not easily changeable to other types of oral formulations (functional foods). Therefore there is no single document cited in the search report to give a hint to a skilled person to administer 2-substituted oleic and related acids (2-hydroxyoleic acid) as functional food additives. It is not regarded obvious for a skilled person to administer 2-substituted oleic and related acids (2-hydroxyoleic acid) as functional food additives as described in the present application.

Accordingly claim 1 (also dependent claims 2-5) meet the requirements of Articles 33(2) and (3) PCT.

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CLAIMS

(105)

- 1.- Use of compounds of general formula I: $\text{COOH-CHR-(CH}_2\text{)}_m\text{-CH=CH-(CH}_2\text{)}_n\text{-CH}_3$, where R is OH and m and n have, independently, a value between 0 and 15, in the manufacture of food additives and/or ingredients, dietary products, acceptable food forms, functional food additives and foods in general, the ingestion of which is useful for the prevention and control of hypertension and/or obesity.
- 2.- Use according to Claim 1, characterized in that the compounds of general formula I preferably have between 12 and 28 carbon atoms.
- 3.- Use according to any one of Claims 1 or 2 characterized in that the compound of general formula I is preferably 2-hydroxyoleic acid.
- 4.- Use according to claim 3, in which the ingestion of 2-hydroxyoleic acid, as food additive and/or ingredient dietary product, acceptable food form, functional food additive or food in general, is useful in the prevention and control of hypertension.
- 5.- Use according to claim 3, in which the ingestion of 2-hydroxyoleic acid, as food additive and/or ingredient dietary product, acceptable food form, functional food additive or food in general, is useful in the prevention and control of obesity.